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## (54) Adhesive dressings, their preparation and use

(57) A dressing for retaining a cannula on the skin comprises a backing film (1) coated on one face with an adhesive layer and with first (8) and second (11) release sheets covering the adhesive layer. A hole (4) and a dividing line (3) are cut through the dressing and second release sheet so that the dividing line extends from the hole to one edge of the dressing and the edge of the second release sheet. In use when the second release sheet is removed the hole in the dressing fits around the indwelling cannula. In a preferred form a portion of the dressing comprises an adhesive coated handle (2) which is stiffer than the remainder of the dressing and which carries the hole and dividing line.

The adhesive layer may carry an antibacterial agent such as chlorhexidine diacetate.

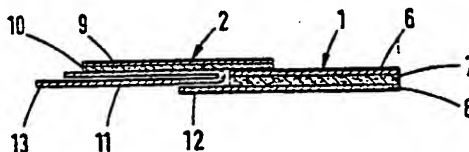


Fig. 2

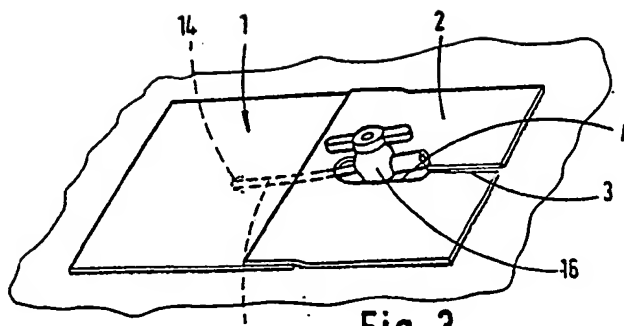


Fig. 3

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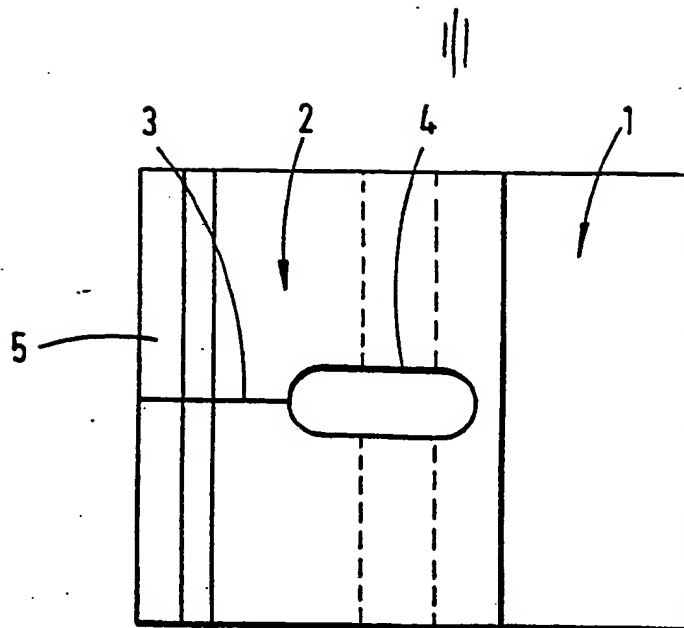


Fig. 1

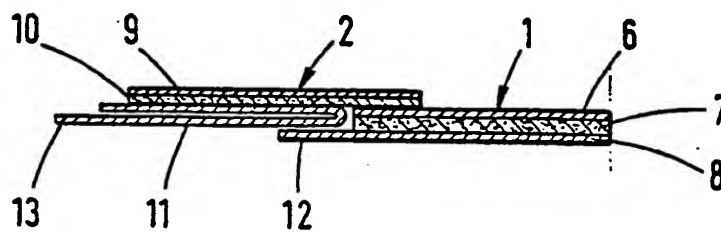


Fig. 2

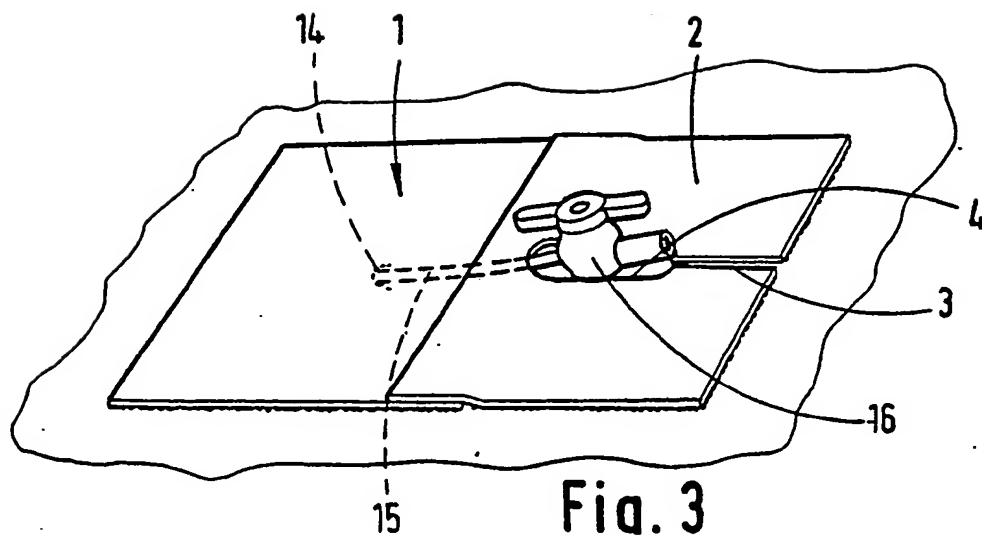


Fig. 3

ADHESIVE DRESSINGS, THEIR  
PREPARATION AND USE

5           The present invention relates to an adhesive  
dressing which is suitable for use on skin for the  
fixation of a catheter or a cannula and which comprises  
a backing film coated on one face with an adhesive layer  
and first and second release sheets covering the  
10       adhesive layer and which dressing is adapted to adhere  
around a connection device at the proximal end of the  
cannula or catheter to prevent ingress of bacteria to  
the injection site; to methods of their preparation and  
use.

15           Adhesive dressings such as OpSite (Trade mark) are  
frequently used to cover and secure a catheter or  
cannula in place at an intravenous access site. Such  
dressings may be referred to as i.v. dressings.

5           Commercially available i.v. dressings typically  
comprise a thin moisture vapour permeable sheet material  
which has on one surface a skin compatible pressure  
sensitive adhesive which is in turn covered by a single  
sheet removable protector. In use the dressing is  
10 adhered so as to cover the intravenous access site and  
the catheter or cannula. One problem with such  
dressings is that usually a bulky connector or hub is  
present at the proximal end of the catheter or cannula  
whereby connection can be made with a source of infusion  
15 fluid. This is usually in the form of a female luer  
lock component. Other devices may be present at this  
hub such as taps or injection ports or the like. The  
connector or hub being necessarily exposed to the  
atmosphere can provide a pathway whereby bacteria may  
20 reach the injection site since the connector cannot be  
totally enclosed beneath the dressing. One way of over-  
coming this problem is to use two types of dressing one  
covering the injection site and the second ensuring that  
bacteria cannot migrate from the connector along the  
25 catheter or cannula to the injection site.

A dressing has now been developed which simplifies  
the protection of injection sites for indwelling  
catheters and cannulae by providing a dressing which  
both covers the injection site and is adapted to retain

5 any connector associated with the catheter or cannula in place with reduced risk of bacteria migrating to the injection site.

A second problem which is sometimes observed with such dressings is that once the protector has been removed the thin filmic adhesive dressing creases, puckers or otherwise sticks to itself and must be discarded. Many dressings have therefore included extra stiffening layers or frames or handles in an attempt to overcome this problem. However, the dressings of this invention mitigate this problem by providing the protector as a first release sheet and a second release sheet so that the first release sheet is removed to expose the adhesive on the part of the dressing which is to cover the injection site and the second release sheet is then removed to expose the remaining adhesive surface which is used to maintain the catheter or cannula in place. The second release sheet, which is folded, stabilises the dressing after removal of the first sheet and during application of the dressing.

25 Accordingly the present invention provides a dressing for retaining a cannula comprising a backing film coated on one face with an adhesive layer and first and second release sheets covering the adhesive layer

5 characterised in that there is a hole and a dividing  
line through the dressing and second release sheet said  
dividing line extending from the hole to one edge of the  
dressing and second release sheet whereby when the  
second release sheet is removed the hole in the dressing  
10 is adapted to be placed around the cannula.

By dividing line is meant a means to enable the  
dressing on one side of the dividing line to be  
separated from the dressing on the other side. A  
dividing line may include for example cuts and lines of  
15 perforations. Preferably the dividing line is a line of  
perforations.

The dividing line allows the hole and the part of  
the dressing around the dividing line to be placed  
easily around, and subsequently secure, a catheter or  
20 cannula lying on the skin.

Suitable backing films include polymeric films,  
papers, woven and nonwoven fabrics, but preferably the  
backing film comprises a flexible polymeric film. The  
film may comprise any of the flexible polymeric films  
25 conventionally used in i.v. dressings. The flexible  
film is aptly a moisture vapour permeable and bacteria  
proof film. In addition it is most convenient to employ

5 a transparent material. Favoured moisture vapour  
permeable, liquid water impermeable, flexible films will  
have a moisture vapour transmission rate of at least 300  
gm<sup>-2</sup> 24h<sup>-1</sup> at 37°C at a relative humidity difference of  
100% to 10%, more suitably at least 400 gm<sup>-2</sup> 24h<sup>-1</sup>,  
10 preferably at least 500 gm<sup>-2</sup> 24h<sup>-1</sup> and most preferably  
at least 700 gm<sup>-2</sup> 24hr<sup>-1</sup>.

Suitable flexible films for use in the invention  
include those described in British Patent No. 1280631  
and European Patent Application Nos. 51935, 178740 and  
15 196459. Favoured flexible polymeric films include those  
formed from a polyether or polyester polyurethane.  
Suitable polyether and polyester polyurethanes include  
those known as Estanes (Trade mark, available from B.F.  
Goodrich Corp.). Preferred polyurethanes are available  
20 as Estanes 5701, 5702, 5703, 5714 and 580201. A second  
particularly favoured flexible film may be formed from  
an elastomeric polyether polyester. Preferred polyether  
polyesters include Hytrel 4056 (Trade mark, available  
from E.I. du Pont de Nemours & Co.). A third  
25 particularly favoured polymeric flexible film may be  
formed from a polyether polyamide. Preferred polyether  
polyamides include Pebax 4011 (Trade mark).

5           Suitably the thickness of the flexible films used  
in the invention may be from 9 to 80µm, more suitably 15  
to 50µm and preferably 20 to 40µm for example 25µm, 30µm  
or 35µm.

10           A second favoured form of flexible film may be  
formed from any moisture vapour permeable transparent  
hydrophilic polymer. Suitable materials include  
polyurethanes, polyether polyesters, polyether  
polyamides, cellulose and the like.

15           A favoured flexible film of hydrophilic polymer is  
formed from a hydrophilic polyurethane. Suitable  
hydrophilic polyurethanes include those having the  
composition and prepared by the process described in  
British Patent No. 2093190B. Favoured hydrophilic  
polyurethanes are those which contain from 5 to 50% by  
20           weight of water when hydrated, more suitably 10 to 40%  
by weight of water and which have a thickness when  
present in a dressing of from 15 to 80µm, more suitably  
20 to 45µm. A preferred film of hydrophilic  
polyurethane has a water content when hydrated of 20 to  
25           30% for example 25% and a thickness of 20 to 45µm, for  
example 30µm.



5           Suitably the adhesive layer on the dressing  
may be 15 to 65 $\mu$ m thick, preferably is 20 to 40 $\mu$ m thick,  
for example 25, 30 or 35 $\mu$ m thick. Such adhesive layers  
will generally have a weight of adhesive per unit area  
of 10 to 75 gm<sup>-2</sup>, more usually 15 to 65 gm<sup>-2</sup> and  
10           preferably 26 to 40 gm<sup>-2</sup>.

          Suitable adhesives include those which are  
described in British Patent No. 1280631 and European  
Patent Applications Nos. 51935, 35399. Preferably, the  
adhesive is a polyvinyl ether adhesive such as polyvinyl  
15           ethyl ether adhesive or an acrylate adhesive such as an  
acrylate ester copolymer adhesive. Examples of the  
latter include acrylate ester copolymers which contain  
hydrophilic groups, for example a copolymer of 47 parts  
by weight butyl acrylate, 47 parts by weight  
20           2-ethylhexyl acrylate and 6 parts by weight acrylic  
acid.

          The adhesive may be applied to the backing film as  
a continuous layer or as a discontinuous layer for  
example as a pattern spread layer, a porous layer.

25           Since the dressings of the present invention are to  
be adhered to normal healthy skin then to avoid  
maceration of that skin it is arranged that the dressing  
will have a moisture vapour permeability of at least 300

5 gm<sup>-2</sup> 24h<sup>-1</sup> at 37°C and 100% to 10% relative humidity,  
more suitably will be at least 500 gm<sup>-2</sup> 24h<sup>-1</sup> and  
preferably will be at least 700 gm<sup>-2</sup> 24h<sup>-1</sup>.

Suitably the adhesive may contain a medicament such  
as an antibacterial agent. Suitably the adhesive may  
10 contain from 1 to 10% by weight of the adhesive as  
medicament.

Suitable antibacterial agents include chlorhexidine  
and salts thereof such as chlorhexidine diacetate and  
chlorhexidine digluconate, iodophors such as polyvinyl  
15 pyrrolidone-iodine, silver salts such as silver  
sulphadiazine and polymeric biguanides for example those  
antibacterial agents known as Vantocil (Trade mark)  
which is polyhexamethylene biguanide hydrochloride.

In a preferred dressing the adhesive contains 5% by  
20 weight of the adhesive of chlorhexidine diacetate.

In a preferred form of this dressing one portion of  
the dressing is a handle. The handle will have an  
adhesive layer on one surface so that it may be adhered  
to the skin of the patient when the dressing is in  
25 place. Normally prior to application of the dressing  
this adhesive layer will be covered by the second

5        release sheet. In use the handle and its associated  
release sheet may be held in the hand whilst the first  
release sheet is removed from the remainder of the  
dressing. The adhesive coated layer is then applied  
over the skin puncture site. The second release sheet  
10       may then be removed and the handle adhered to the skin.  
The handle is made from a different material to the rest  
of the dressing and since it is not meant to cover the  
skin puncture site need not be bacterial-proof through  
this property is desirable. It is clear therefore that  
15       in a preferred form the backing layer of the dressing  
comprises a handle and a flexible sheet which forms the  
rest of the dressing. The flexible sheet is aptly  
formed from any of the materials which are suitable for  
the backing layer as described hereinbefore especially a  
20       moisture vapour permeable, liquid water impermeable,  
flexible polymeric film. The handle may be attached to  
the rest of the dressing by any conventional means such  
as adhesives or by bonding the handle and flexible sheet  
together by means of heat. In this preferred form of  
25       the dressing the hole and dividing line are located in  
the handle of the dressing.

From the foregoing it is clear that the adhesive  
surface on the handle and the adhesive surface on the

5 flexible sheet will be on the same side so that both may  
be adhered to the body.

The handle used in the dressing of the invention  
can suitably be a film, sheet or web. Suitable handles  
can be made of a wide variety of materials including  
10 paper, non-woven fabric, woven fabric and films, sheets  
or webs of polymers including polypropylene,  
polyethylene, copolymers thereof and blends thereof and  
blends including polystyrene, polyester and polyvinyl  
chloride.

15 Particularly apt materials for forming the handle  
include paper, porous polyvinyl chloride sheet such as  
that sometimes known as Porvic (Trade mark) which is  
conventionally used in the manufacture of first aid  
dressings, non-woven fabric such as spun-bonded  
20 polyester fabric (Sontara, Trade mark), polyester film  
(Melinex, Trade mark), woven acrylic fabric, embossed  
films of low or high density polyethylene or  
polypropylene, integral nets formed by the fibrillation  
of embossed films and oriented polypropylene films.

25 However, particularly preferred materials for  
forming the handle are integral nets particularly those  
formed by the fibrillation of thermoplastic embossed

5 polyolefin films comprising low and high density  
polyethylene, polypropylene or copolymers or blends  
thereof or blends of polyolefin with polystyrene. Such  
nets are described in British Patents Nos. 1495151 and  
1531715.

10 The handle has a dividing line extending inwardly  
from the edge of the handle in a direction towards the  
flexible sheet portion of the backing film of the  
dressing. The dividing line leads to the hole cut  
within the area of the handle. The hole preferably  
15 extends into the overlap area where the handle and  
flexible sheet overlap.

The hole may be of any shape such as square,  
rectangular, circular, oval and the like. It is  
preferred that the hole is oval in shape as this shape  
20 accommodates the shape of the connector and thereby  
forms a better seal between the dressing and the  
connector. Suitably the long axis of the hole may be  
from 20 to 30mm in length and preferably 23 to 27mm in  
length for example 25mm and the short axis of the hole  
25 may be from 5 to 15mm, and preferably 7 to 11mm for  
example 9mm.

5           The second release sheet which may cover the  
exposed adhesive of the handle when present may be in a  
folded form and may be cut along with the handle so that  
the release sheet has a slit and opening or  
alternatively the release sheet may be merely  
10 perforated.

The handle may be colour coded, for example the  
handle may be green or yellow or pink.

Since the handle is to be adhered to the skin it is  
preferred that the handle when coated with adhesive  
15 should have a moisture vapour transmission rate of at  
least  $300\text{gm}^{-2} \text{ } 24\text{h}^{-1}$  at  $37^{\circ}\text{C}$  and 100% to 10% relative  
humidity when measured by the Payne Cup Method. More  
suitably the adhesive coated handles should have a rate  
of at least  $500\text{gm}^{-2} \text{ } 24\text{h}^{-1}$  and preferably should be at  
20 least  $700\text{gm}^{-2} \text{ } 24\text{h}^{-1}$ . The handle may then be safely  
adhered to the skin without the risk of causing  
maceration to the underlying normal healthy skin.

An adhesive such as one of those described in  
British Patent No. 1280631 or European Patent  
25 Application No. 35399 may be spread onto the smooth  
surface of the net as hereinbefore described, that is  
the one which was embossed with the series of grooves.

5 A particularly suitable adhesive is an acrylate ester  
copolymer adhesive formed from the polymerisation of 47  
parts 2-ethylhexyl acrylate, 47 parts butyl acrylate and  
6 parts acrylic acid. This combination of net and  
adhesive gives a tape of both high moisture vapour  
10 permeability which is particularly apt for the dressings  
of the present invention. If the adhesive layer is  
continuous the moisture vapour transmission rate is  
approximately  $800\text{gm}^{-2} \text{ 24h}^{-1}$  and if the adhesive layer is  
porous the rate may be as high as  $8000\text{gm}^{-2} \text{ 24h}^{-1}$ , when  
15 measured at  $37^{\circ}\text{C}$  and 100% to 10% relative humidity.

Suitably the handle may be 1.0cm to 6.0cm in width  
and preferably 2.0 to 5.0cm in width, for example 2.8cm,  
3.0cm or 3.8cm in width. The width of the margin of the  
handle which is adhered to the edge margin of the  
20 flexible sheet is then suitably 0.1 to 1.0cm, more  
suitably is 0.15 to 0.5cm and is preferably 0.2 to  
0.3cm.

In order to avoid maceration of the underlying skin  
in this overlap area of the flexible sheet and handle  
25 the dressing in this area will favourably have a  
moisture vapour transmission rate of at least  $300\text{g}^{-2}$   
 $\text{24h}^{-1}$  at  $37^{\circ}\text{C}$  and 100% to 10% relative humidity

5        difference, more favourably the rate will be at least  
500gm<sup>-2</sup> 24h<sup>-1</sup> and preferably be at least 700gm<sup>-2</sup> 24h<sup>-1</sup>.

      In a further embodiment of this invention a further  
handle may be placed on the edge of the dressing  
opposite the handle with the dividing line and hole.

10        Suitable release sheets for covering exposed  
adhesive areas prior to use include silicone release  
coated papers and plastics coated papers and release  
coated films such as silicone coated polyethylene. A  
favoured release sheet is a silicone release/  
15        polyethylene coated paper known as Steralease No. 15  
(Trade mark, available from Sterling Coated Paper  
Limited).

      The adhesive layer of the dressing is protected by  
a first and second release sheet.

20        In a preferred form the second release sheet  
protects the adhesive layer on the handle and is folded  
back to form a second tab. The first release protects  
the adhesive layer on the flexible sheet of the dressing  
and a part of this first release sheet, which is not in  
25        contact with the adhesive layer, forms a first tab which  
covers part of the second tab. Preferably the second



5        tab is longer than the first tab. In a further  
preferred embodiment the second tab when folded back  
extends beyond the edge of the dressing.

         Preferably the second release sheet which protects  
the adhesive layer on the handle has a hole and a  
10        dividing line in it matching exactly the hole and  
dividing line in the handle.

         In a further preferred form of the dressing a  
portion is cut out of the second tab so that when it is  
folded back on the second release sheet the cut-out  
15        portion of the second tab will overlay that portion of  
the hole in the second release sheet covered by the  
second tab. Preferably the first tab has an aperture  
cut so that when it covers the second tab the edges of  
the aperture line up with the edges of the hole in the  
20        second release sheet and the handle.

         The dressing of the invention will usually have a  
rectangular shape. Suitable dressings have a size of  
5cm x 5cm to 20cm x 20cm for example 6cm x 8cm, 10cm x  
10cm, 10cm x 15cm, 15cm x 15cm etc.

5           The dressing of the invention is preferably  
sterile. The dressing of the invention is  
advantageously provided within a bacteria proof pack  
such as a sealed aluminium foil or paper/plastics film  
pouch. Sterilization of the dressing can be carried out  
10 by a conventional sterilizing method such as ethylene  
oxide, electron or gamma radiation.

          In another aspect the invention provides a process  
of making a dressing of the invention which comprises  
attaching the edge margin of a handle to an edge margin  
15 of a flexible sheet and then the handle has a dividing  
line cut inwardly from one side edge and a hole punched  
in the handle area.

          Suitable backing films, flexible sheets and handles  
for use in the process of the invention are described  
20 hereinbefore in relation to the dressing of the  
invention.

          The backing film may be formed by casting or  
extrusion onto a support film, usually the non-release  
surface of a conventional release paper or polymer. The  
25 adhesive layer may be formed by casting or transfer  
coating onto the surface of the flexible film. The  
adhesive surface of the flexible film may then be

5 transferred onto the release surface of the second  
release sheet and then the first release sheet placed  
over the remaining adhesive surface so that the tab  
portion overlaps onto the second release sheet. The  
three layer laminate is then cut into a strip having the  
10 width of the required dressing. The dividing line and  
hole are then cut in the dressing.

The handle when present may be formed by transfer  
coating an adhesive layer on a release paper onto the  
material forming the handle. This may then be cut into  
15 a strip of the appropriate width and attached to the  
edge of the flexible sheet portion of the backing film.  
The second release sheet is applied to the adhesive  
surface of the handle and the first release sheet is  
applied to the adhesive surface of the flexible sheet.  
20 The dividing line and hole are then cut in the handle  
area and second release sheet.

In another aspect the present invention provides a  
method for retaining a cannula on the body employing a  
dressing comprising a backing film coated on one face  
25 with an adhesive layer and first and second release  
sheets covering the adhesive layer in which there is a  
hole and a dividing line through the dressing said  
dividing line extending from the hole to one edge of the

5 dressing and second release sheet which method comprises  
separating the dressing along the dividing line and  
placing the part of the dressing containing the hole  
around the cannula, removing the first release sheet and  
adhering the exposed part of the dressing over the  
10 puncture site and then removing in turn the two halves  
of the second release sheet so that the remainder of the  
dressing secures the cannula on the skin.

A preferred embodiment of the present invention  
will now be described with reference to the accompanying  
15 drawings in which:-

Figure 1 shows a plan view of a dressing of the  
invention.

Figure 2 shows a cross-section through a dressing  
of the invention illustrating the layers which are  
20 present therein.

Figure 3 shows a dressing of the invention adhered  
to the skin and around a tap connector.

Figure 1 shows a view from above of a dressing of  
the present invention. The adhesive coated flexible  
25 sheet portion of the backing film (1) is adhered to the

5 skin over the injection site. An adhesive coated handle  
(2) is attached along one edge to the adhesive coated  
flexible sheet (1). The handle (2) has extending  
inwardly from one side edge a dividing line (3) and at  
the end of the dividing line (3) but within the  
10 boundaries of the handle (2) is a hole (4). The exposed  
adhesive surfaces of the flexible sheet (1) and the  
handle (2) are covered by first and second release sheets  
respectively which are removed prior to use. The second  
release sheet (5) which covers the adhesive on the handle  
15 (2) is in the form of a folded piece of silicone release  
paper which may carry a dividing line and hole similar to  
that of the handle (2) or may be perforated along the  
line of the dividing line (3) in the handle.

20 Figure 2 shows a cross-section through a dressing  
of the invention showing the different layers which make  
up the dressing. The adhesive coated flexible sheet (1)  
comprises two layers, first a backing film (6) which is  
formed from a moisture vapour permeable polymeric film  
comprising for example a linear polyether or polyester  
25 polyurethane, an elastomeric polyester or other  
hydrophilic polymer film, which has a moisture vapour  
transmission rate of over  $1600 \text{ gm}^{-2} \text{ 24h}^{-1}$  at  $37^\circ\text{C}$  and  
100% to 10% relative humidity difference. Second an  
adhesive layer (7) which is formed from a skin

5 compatible adhesive such as a polyvinylethyl ether or  
polyacrylate ester copolymer adhesive. Suitably the  
adhesive is moisture vapour permeable whereby the  
dressing has a moisture vapour transmission rate of over  
300gm<sup>-2</sup> 24h<sup>-1</sup>. Prior to use the adhesive surface is  
10 covered by a first release sheet (8) formed from a  
silicone coated release paper. The handle (2) is also  
formed from 2 layers (9,10). The first a backing layer  
(9) is more rigid than the backing film (1) but is also  
formed from a moisture vapour permeable material. Since  
15 this material is adhered to unbroken skin, the backing  
layer (9) may be a plasticised polyvinyl chloride film,  
a non-woven fabric or a net. The second layer (10) is  
an adhesive layer similar to that on the flexible sheet  
(1). The handle (2) is adhered to the adhesive coated  
20 flexible sheet (1) along one edge and the remaining  
exposed adhesive surface is covered by a silicone-coated  
second release sheet (11) suitably in the form of a  
folded piece. The first release sheet (8) overlaps part  
of the second release sheet (11) to ensure that no  
25 adhesive surfaces are left exposed. The first (12) and  
second (13) tabs on the first and second release sheets  
respectively allow the release sheets to be removed  
easily.

5           Figure 3 shows a dressing of the invention in  
position at an injection site. The adhesive coated  
flexible sheet (1) is adhered over the injection site  
(14) and over the indwelling catheter (15). The hole  
(4) and the dividing line (3) in the handle (2) are  
10 adapted to fit round a connector (16) which in this  
illustration carries a tap.

In use the second tab (13) and handle (2) are held  
in one hand and the first tab (12) is held in the other  
hand. The first tab (12) is then pulled and the first  
15 release sheet (8) is removed from the adhesive coated  
flexible sheet (1). The adhesive coated backing film  
(1) is then adhered over the injection site and the  
catheter or cannula. The second tab (13) is then  
grasped and pulled and the second release sheet (11) is  
20 removed. The dividing line (3) in the dressing enables  
the dressing to be placed around the connector (16) so  
that the hole (4) in the dressing goes around the  
connector (16) and the two parts of the handle (2) can  
be adhered to the skin around the connector (14).

25           Alternatively the dressing may be used as follows,  
the perforated dividing line (3) is torn through and the  
two arms of the handle (2) and the hole (4) are arranged  
to lie on either side of the connector (16). The first

5        tab (12) is used to remove the release sheet (8) from  
the adhesive surface of the flexible sheet (1) and this  
portion of the dressing is adhered to the skin over the  
injection site (14) and the indwelling catheter (15).  
The second tab (13) now in two parts is used to expose  
10       in turn the adhesive surfaces of the handle (2)  
surrounding the connector (16) which are then adhered to  
the skin around the connector. Alternatively each half  
of the second tab in turn can be used to expose the  
adhesive surfaces of the divided handle such that the  
15       handle halves cross one on top of the other on the skin  
under the connector to form a better seal around the  
connector and to secure the connector more firmly.



CLAIMS

5        1.    A dressing for retaining a cannula comprising a  
backing film coated on one face with an adhesive layer  
and first and second release sheets covering the  
adhesive layer characterised in that there is a hole and  
a dividing line through the dressing and second release  
10       sheet said dividing line extending from the hole to one  
edge of the dressing and second release sheet whereby  
when the second release sheet is removed the hole in the  
dressing is adapted to be placed around a cannula.

15       2.    A dressing as claimed in claim 1 in which the  
dividing line is a line of perforations.

3.    A dressing as claimed in either of claims 1 or 2 in  
which the hole is oval in which the long axis is from 20  
to 30mm and the short axis is from 5 to 15mm.

20       4.    A dressing as claimed in claim 1 in which part of  
said second release sheet is folded back to form a  
second tab and a part of said first release sheet which  
is not in contact with the adhesive layer forming a  
first tab which covers part of said second tab, and  
wherein the second tab extends beyond the first tab.

- 5        5.    A dressing as claimed in claim 1 in which one  
portion of the dressing is an adhesive coated handle in  
which the hole and dividing line are located in the  
handle.
- 10       6.    A dressing as claimed in claim 5 in which the  
handle is made from a different material to the backing  
film.
7.    A dressing as claimed in claim 6 in which the  
handle is an integral net.
- 15       8.    A dressing as claimed in any one of claims 1 to 7  
in which the backing layer is a flexible polymeric film  
of polyurethane of thickness from 15 to 50 $\mu$ m.
- 20       9.    A dressing as claimed in any one of claims 1 to 8  
in which the adhesive layer is formed from an acrylate  
ester copolymer adhesive and which has a weight per unit  
area of 10 to 75gm<sup>-2</sup>.
10.    A dressing as claimed in any one of claims 1 to 9  
in which the dressing has a moisture vapour transmission  
rate of at least 300gm<sup>-2</sup> 24h<sup>-2</sup> at 37°C and 100% to 10%  
relative humidity difference.

- 5        11.    A dressing as claimed in any one of claims 1 to 10  
         in which the adhesive layer contains antibacterial  
         agent.
12.    A dressing as claimed in claim 11 in which the  
         adhesive layer contains 5% by weight of the adhesive  
10       chlorhexidine diacetate.
13.    A dressing as claimed in any one of claims 1 to 12  
         in which the dressing is sterile and is provided in a  
         bacteria proof pack.